

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID KAMMER

Appeal 2007-2355
Application 10/006,952
Technology Center 2600

Decided: October 30, 2007

Before JOSEPH L. DIXON, ANITA PELLMAN GROSS, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-6 and 8-31. Claim 7 has been cancelled. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

THE INVENTION

The disclosed invention relates generally to a method of communicating between a handheld computer and other local area computing devices having wireless communication capability. More particularly, the disclosed invention relates to a method that includes providing a handheld computer, identifying a number of other local area computing devices having wireless communication capability, creating an identifier for one or more of the plurality of other local area computing devices, and listing each identifier on a display, wherein the list is sorted in order of at least one of the distance and direction from the handheld computer (Specification 3-4).

Independent claim 1 is illustrative:

1. A method of communicating between a handheld computer and other local area computing devices having wireless communication capability, comprising the steps of:
 - providing a handheld computer;
 - identifying a plurality of other local area computing devices having wireless communication capability;
 - creating an identifier for one or more of the plurality of other local area computing devices;
 - listing each identifier on a display, wherein the list is sorted in order of at least one of distance and direction from the handheld computer; and

selecting one or more of the listed identifiers and sharing
information with the local area computing device
corresponding to the chosen identifier.

THE REFERENCES

Bork	US 6,246,376 B1	June 12, 2001
Kikinis	US 6,389,290 B1	May 14, 2002
Hendrey	US 6,542,750 B2	Apr. 1, 2003

THE REJECTIONS

Claims 1-5, 8-13, 15-21, and 23-29 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over the teachings of Bork in view of
Hendrey.

Claims 6, 14, 22, 30, and 31 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over the teachings of Bork in view of Hendrey, and
further in view of Kikinis.

Rather than repeat the arguments of Appellant or the Examiner, we
make reference to the Briefs and the Answer for the respective details
thereof.

PRINCIPLES OF LAW

“What matters is the objective reach of the claim. If the claim extends
to what is obvious, it is invalid under § 103.” *KSR Int’l Co. v. Teleflex, Inc.*,
127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be
“more than the predictable use of prior art elements according to their
established functions.” *Id.* at 1740. Appellant has the burden on appeal to
the Board to demonstrate error in the Examiner’s position. *See In re Kahn*,
441 F.3d 977, 985-86 (Fed. Cir. 2006) (“On appeal to the Board, an
applicant can overcome a rejection [under § 103] by showing insufficient

evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). Therefore, we look to Appellant’s Briefs to show error in the proffered *prima facie* case.

ANALYSIS

Combinability under section 103

We begin our analysis by deciding the threshold question of whether Appellant has shown the Examiner has failed to articulate an adequate reasoning with a rational underpinning to support the proffered combinability of Bork and Hendrey.¹

Appellant contends there is no suggestion to combine the references because the Examiner’s proposed combination of Bork and Hendrey would change Bork’s principal of operation (App. Br. 14).

Appellant notes that Bork’s system displays the direction and distance to an object or person on a wireless device (*See e.g.*, Bork col. 7, ll. 4-6: “[t]he graphic display 114 is preferably capable of supporting a clear arrow indicating the target direction, as well as its estimated distance.”). Appellant notes that Bork also teaches alternative means of indicating distance and

¹ “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Moreover, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 127 S. Ct. at 1741 (quoting *In re Kahn*, 441 F.3d at 988).

direction, such as audible or touch sensitive devices (*See* Bork, col. 6, lines 39-44). Thus, Appellant concludes that Bork is primarily concerned with providing specific distance and direction information to a user (App. Br. 14).

In contrast, Appellant notes that Hendrey's connections are initiated between two or more mobile telecommunications users based on predefined criteria without providing specific distance or direction information to the user (*See* Hendrey, col. 5, ll. 21-25; *see also* col. 7, ll. 9-12). Appellant notes that Hendrey's user merely provides the predefined criteria used to identify callees with whom a connection is then automatically initiated. Thus, Appellant contends that Hendrey's approach is a substantial change in operation from Bork's system, where specific distance and direction information is provided to a user. Appellant contends that applying the concepts of Hendrey to Bork's device would eliminate displaying the desired direction and distance information which is a central feature of Bork. Thus, Appellant concludes the Examiner has failed to establish a *prima facie* case of obviousness (App. Br. 14-15).

The Examiner disagrees (Ans. 22). The Examiner notes that Hendrey specifically teaches the use of global positioning systems, time difference of arrival (TDOA), and angle of arrival (AOA) for determining the location of telecommunication users (*See* Hendrey, col. 5, ll. 26-41). The Examiner further notes that Hendrey teaches notions of distance, as follows:

notions of distance are in particular intended to encompass not only literal distance measure, but additionally any and all measures conducive to identifying a set of users who would have the least difficult separation to overcome in order to attend a physical group meeting.

(Hendrey, col. 8, ll. 56-67).

Thus, the Examiner finds the teachings of Hendrey coincide with the teachings of Bork “in that not only the physical distance between mobile devices is taken into account but also the path of least resistance when determining a place for a physical group meeting between the mobile users.” (Ans. 23, *see* Bork Fig. 2, col. 4, l. 54 through col. 5, l. 67; *see also* Hendrey, col. 8, ll. 56-67). The Examiner concludes the combined teachings of Bork and Hendrey would have lead an artisan to a mobile device that allows for the searching, sorting and connection of users located proximate to each other, while “taking into account the distance, direction and path of least resistance between the mobile devices.” (Ans. 23, *see* Bork Fig. 2, col. 4, l. 54 through col. 5, l. 67; *see also* Hendrey, col. 6, l. 1 through col. 7, l. 3, col. 8, ll. 56-67, col. 9, ll. 45-53, col. 10, ll. 1-39, and col. 12, ll. 38-56).

We agree with the Examiner that Bork and Hendrey are properly combinable for essentially the same reasons stated in the Answer. We find Hendrey’s matchmaking feature would have enhanced Bork’s system which displays the direction and distance to another person’s wireless device. Once the direction and distance to a particular person’s wireless device was located by Bork’s system (as described at column 2, lines 25-35), Hendrey’s matchmaker system would have determined how well the user attributes match each other, as described at column 10, lines 1-21. Significantly, the combined system proffered by the Examiner would provide the user with both distance and *direction* information. While both Bork and Hendrey provide distance information, only Bork provides direction information (*See* Bork, col. 2, l. 32). In addition, Bork would have provided *continuous*

direction and distance updates (e.g., when one or both persons were moving) when combined with the teachings of Hendrey (*See* Bork, col. 2, ll. 33-35). Thus, we find Bork and Hendrey have complementary features that would have reasonably lead an artisan having ordinary skill and common sense to combine their teachings in the manner suggested by the Examiner. Our reviewing court has stated: “[t]he use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain.” *In re Heck*, 699 F.2d 1331, 1333 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009 (CCPA 1968)). Therefore, we find Appellant’s argument that Hendrey would change Bork’s principal of operation to be unsupported by the evidence.

Moreover, after carefully considering the record before us, we conclude the Examiner’s proffered combination of Bork and Hendrey reasonably teaches and/or suggests Appellant’s claimed invention in terms of *familiar elements* (e.g., cell phones, GPS location systems, and BLUETOOTH short-range wireless communication systems) that would have been combined by an artisan having ordinary skill and common sense using *known methods* to achieve a *predictable result* at the time of the invention. *See KSR*, 127 S. Ct. at 1739-40. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1739-40).

For at least the aforementioned reasons, we conclude the Examiner has articulated an adequate reasoning with a rational underpinning that reasonably supports the proffered combinability of Bork and Hendrey.

Elements under section 103

Claims 1-5

We consider the Examiner's rejection of claims 1-5 as being unpatentable over the teachings of Bork in view of Hendrey. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 1 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Appellant argues that the combination of Bork and Hendrey does not teach or suggest the recited limitations of:

listing each identifier on a display, wherein the list is sorted in order of at least one of distance and direction from the handheld computer;
(Claim 1; *see also* App. Br. 7).

Referring to the portions of Hendrey cited by the Examiner, Appellant contends that Hendrey, at column 9, line 54 through column 10, line 21, teaches a user initiates a matchmaking request, and a separate matchmaker 107 creates a list of best matches using information that is not provided to the user for display (App. Br. 8). Thus, Appellant contends that Hendrey's matchmaking system simply initiates a connection after identifying a callee *without displaying a list to the user*. With regard to Fig. 2 and item 222, Appellant submits Hendrey teaches that group members within a maximum

distance are selected, but does not teach that members of a group list 220 are sorted in group list 220 based on distance values in distance entry 222. Thus, Appellant concludes the combination of Bork and Hendrey does not teach or suggest listing identifiers on a display where the list is sorted in order of distance and/or direction, as required by the language of claim 1 (App. Br. 8).

The Examiner disagrees. The Examiner notes that a step of “sorting” is not claimed, only that the displayed list is sorted by distance or direction (*See* Claim 1). The Examiner points out that in the case where only two contacts meet the criteria, the lists would be inherently sorted (either sorted greatest to lowest or lowest to greatest), as broadly claimed. In the example shown in Hendrey's Fig. 2 (i.e., a list with two entries), the Examiner submits that regardless of the two values shown, Hendrey's list of two entries is either sorted greatest to lowest or lowest to greatest (distance), and therefore clearly meets the broadly claimed “sorted” limitation (Ans. 13). The Examiner acknowledges that Hendrey's matchmaker is automated in the embodiment argued by Appellant (Ans. 15). However, the Examiner notes that Hendrey teaches an alternate embodiment, at column 12, lines 52-56, where a person performs the matchmaker functions. Regarding displaying the list of callees, the Examiner reasons that a person cannot efficiently manipulate lists of user identifiers and relative distances without such data lists being shown on the display of the wireless device (e.g., a cell phone) (Ans. 15).

After carefully examining the record before us, we find the weight of the evidence supports the Examiner's position. In particular, we find

Appellant has narrowly focused on the automated matchmaking embodiment taught by Hendrey (*See e.g.*, Hendrey, col. 14, ll. 54-59). However, as pointed out by the Examiner, Hendrey expressly teaches an alternate embodiment where the matchmaker may be a person:

In one embodiment the matchmaker 107 may be automated. However, in alternate embodiments matchmaker 107 may be partially or entirely a person using a telecommunication device and having access to distance information provided by telecommunication infrastructure 120.
(Hendrey, col. 12, ll. 53-56).

Hendrey teaches an embodiment where a list of possible matches (i.e., callees) is sorted by proximate distance from the device:

Next, in step 703, matchmaker 107 accesses user attribute profile information 131 and creates a list of the best matches between the initiator and other users who have registered with the matchmaker 107. This list may be sorted in order of best match first for later processing, or may be sorted by proximate distance of possible matches.
(Hendrey, col. 10, ll. 1-6).

The invention may use any matchmaking process responsive to both attributes and distance. As a first example, potential matches could alternately be sorted by distance and then selected in distance order responsive to meeting a minimum match score.
(Hendrey, col. 12, ll. 6-11).

Regarding the issue of whether Hendrey displays the list of matches to the user, we note that Hendrey expressly discloses examples of mobile telecommunication units (MUs or TUs) as “cell phones and other related devices.” (Hendrey, col. 1, ll. 22-23). Therefore, we agree with the Examiner

that the only reasonable way for a *person* to perform matchmaker functions using Hendrey's mobile telecommunication units is by use of the device display. Therefore, as an issue of fact, we find the weight of the evidence supports our finding that Hendrey teaches and/or suggests conveying the sorted list information to a person via the cell phone display in the embodiment where the person is the matchmaker (*See* Hendrey, col. 12, ll. 53-56).

For at least the aforementioned reasons, we find the proffered combination of Bork and Hendrey reasonably teaches and/or suggests the recited limitations of "listing each identifier on a display, wherein the list is sorted in order of at least one of distance and direction from the handheld computer;" (Claim 1). We have addressed the combinability of Bork and Hendrey *supra*. Thus, we find Appellant has failed to rebut the Examiner's legal conclusion of obviousness by establishing insufficient evidence of *prima facie* obviousness or evidence of secondary indicia of nonobviousness. Therefore, we sustain the Examiner's rejection of independent claim 1 as being unpatentable over Bork in view of Hendrey.

Appellant has not presented any substantive arguments directed to the separate patentability of dependent claims 2-5. Therefore, we sustain the Examiner's rejection of claims 2-5 as being unpatentable over Bork in view of Hendrey for the same reasons discussed *supra* with respect to claim 1. *See In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Claims 8-13 and 15

We consider next the Examiner's rejection of claims 8-13 and 15 as being unpatentable over the teachings of Bork in view of Hendrey. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 8 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Appellant argues that the combination of Bork and Hendrey does not teach or suggest the recited limitations of:

listing the one or more local area computing devices on a display, wherein the list is sorted in order of at least one of distance and direction from the handheld computer;
(Claim 8; *see also* App. Br. 9).

We will sustain the Examiner's rejection of representative claim 8 for essentially the same reasons set forth by the Examiner in the Answer, and also as discussed above regarding claim 1. In particular, we find the list of callee phone numbers (221) shown in Hendrey's Figure 2 represents the callee mobile phones (i.e., computing devices). We have previously addressed the issue of the display and the sorted list in the discussion of independent claim 1. Thus, we find the proffered combination of Bork and Hendrey teaches and/or suggests "listing the one or more local area computing devices on a display," as claimed (Claim 8; *see also* Hendrey, col. 6, l. 36). Therefore, we sustain the Examiner's rejection of representative claim 8 as being unpatentable over Bork in view of Hendrey. Appellant has not presented any substantive arguments directed to the separate patentability of dependent claims 9-13 and 15. Therefore, we sustain the Examiner's rejection of claims 9-13 and 15 as being unpatentable

over Bork in view of Hendrey for the same reasons discussed *supra* with respect to claim 8. *See In re Young*, 927 F.2d at 590. *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Claims 16-21 and 23

We consider next the Examiner's rejection of claims 16-21 and 23 as being unpatentable over the teachings of Bork in view of Hendrey. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 16 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Appellant argues that the combination of Bork and Hendrey does not teach or suggest the recited limitations of:

wherein the processor instructs the display to list a plurality of other computing devices located within a range of the transmitter, sorted in order of at least one of the distance and the direction from the wireless communication device;
(Claim 16; *see also* App. Br. 11).

We will sustain the Examiner's rejection of representative claim 16 for essentially the same reasons set forth by the Examiner in the Answer, and also as discussed above regarding independent claims 1 and 8. We find a processor is inherent in the mobile phones used by both Bork and Hendrey. We find the list of callee phone numbers (221) shown in Hendrey's Figure 2 represents the callee mobile phones (i.e., computing devices). Thus, we find the proffered combination of Bork and Hendrey teaches and/or suggests "wherein the processor instructs the display to list a plurality of other

computing devices located within a range of the transmitter,” as claimed (Claim 16; *see also* Hendrey, col. 6, l. 36). We have previously addressed the issue of the display and the sorted list in the discussion of independent claim 1. Therefore, we sustain the Examiner’s rejection of independent claim 16 as being unpatentable over Bork in view of Hendrey. Appellant has not presented any substantive arguments directed to the separate patentability of dependent claims 17-21 and 23. Therefore, we sustain the Examiner’s rejection of claims 17-21 and 23 as being unpatentable over Bork in view of Hendrey for the same reasons discussed *supra* with respect to claim 16. *See In re Young*, 927 F.2d at 590. *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Claims 24-29

We consider next the Examiner’s rejection of claims 24-29 as being unpatentable over the teachings of Bork in view of Hendrey. Since Appellant’s arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 24 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Appellant argues that the combination of Bork and Hendrey does not teach or suggest the recited limitations of:

wherein the list is sorted in order of at least one of the distance and direction from the handheld computer;
(Claim 24; *see also* App. Br. 12).

We will sustain the Examiner's rejection of representative claim 24 for essentially the same reasons set forth by the Examiner in the Answer, and also as discussed above regarding independent claims 1, 8, and 16. We have previously addressed the issue of the sorted list in the discussion of independent claim 1. Therefore, we sustain the Examiner's rejection of independent claim 24 as being unpatentable over Bork in view of Hendrey. Appellant has not presented any substantive arguments directed to the separate patentability of dependent claims 25-29. Therefore, we sustain the Examiner's rejection of claims 25-29 as being unpatentable over Bork in view of Hendrey for the same reasons discussed *supra* with respect to claim 24. *See In re Young*, 927 F.2d at 590. *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Dependent claims 6, 14, 22, 30, and 31

We consider next the Examiner's rejection of claims 6, 14, 22, 30, and 31 as being unpatentable over the teachings of Bork in view of Hendrey, and further in view of Kikinis.

Appellant contends that Kikinis fails to remedy the deficiencies of Bork and Hendrey, as previously discussed (App. Br. 15).

In response, we find no deficiencies with the Examiner's proffered combination of Bork and Hendrey, as discussed *supra*. Thus, Appellant has not presented any substantive arguments directed to the separate patentability of dependent claims 6, 14, 22, 30, and 31. Therefore, we sustain the Examiner's rejection of claims 6, 14, 22, 30, and 31 as being unpatentable over the teachings of Bork in view of Hendrey, and further in

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view of Kikinis for the same reasons discussed *supra* with respect to independent claims 1, 8, 16, and 24, respectively. *See In re Young*, 927 F.2d at 590. *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

DECISION

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1-6 and 8-31 under 35 U.S.C. § 103(a) for obviousness. Therefore, the decision of the Examiner rejecting claims 1-6 and 8-31 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

pgc/clj

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